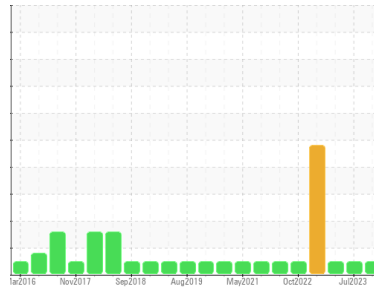


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
2014 MCI D4500 79

Component
Rear Rear Diesel Engine

Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (9 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | PCA0125060 | PCA0101053 | PCA0085129 |
| Sample Date | Client Info | | 02 May 2024 | 20 Jul 2023 | 16 Feb 2023 |
| Machine Age | mls | Client Info | 328454 | 315821 | 305683 |
| Oil Age | mls | Client Info | 12633 | 11041 | 903 |
| Oil Changed | Client Info | | Changed | Changed | Changed |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|--------|-----------|------------|----------------|----------|----------|
| Fuel | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| Water | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | WC Method | | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >165 | 42 | 17 | 3 |
| Chromium | ppm | ASTM D5185m >5 | 2 | <1 | 0 |
| Nickel | ppm | ASTM D5185m >4 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m >2 | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m >2 | 1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >20 | 4 | 2 | <1 |
| Lead | ppm | ASTM D5185m >150 | 3 | 2 | <1 |
| Copper | ppm | ASTM D5185m >90 | 3 | <1 | <1 |
| Tin | ppm | ASTM D5185m >5 | 2 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | <1 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | <1 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m 1 | 2 | 1 | <1 |
| Barium | ppm | ASTM D5185m 1 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m 60 | 67 | 62 | 60 |
| Manganese | ppm | ASTM D5185m 1 | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m 1010 | 1022 | 1026 | 971 |
| Calcium | ppm | ASTM D5185m 1070 | 1163 | 1136 | 1074 |
| Phosphorus | ppm | ASTM D5185m 1150 | 1177 | 1054 | 1037 |
| Zinc | ppm | ASTM D5185m 1270 | 1349 | 1304 | 1283 |
| Sulfur | ppm | ASTM D5185m 2060 | 3692 | 3622 | 3800 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|-----------|----------|----------|
| Silicon | ppm | ASTM D5185m >35 | 24 | 25 | 11 |
| Sodium | ppm | ASTM D5185m | 8 | 6 | 2 |
| Potassium | ppm | ASTM D5185m >20 | 6 | 3 | 0 |

INFRA-RED

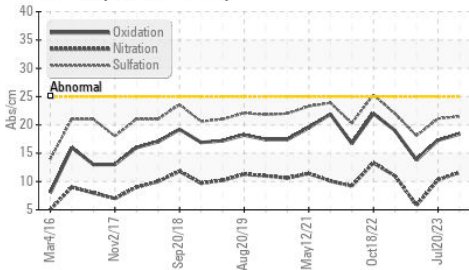
| | method | limit/base | current | history1 | history2 |
|-----------|----------|------------------|-------------|----------|----------|
| Soot % | % | *ASTM D7844 >7.5 | 0.5 | 0.4 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 >20 | 11.6 | 10.3 | 5.8 |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | 21.5 | 21.1 | 18.1 |

FLUID DEGRADATION

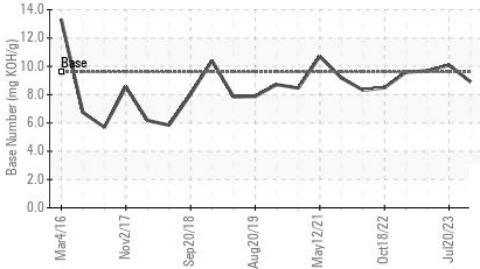
| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation | Abs/.1mm | *ASTM D7414 >25 | 18.4 | 17.3 | 13.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896 9.6 | 8.90 | 10.08 | 9.69 |

OIL ANALYSIS REPORT

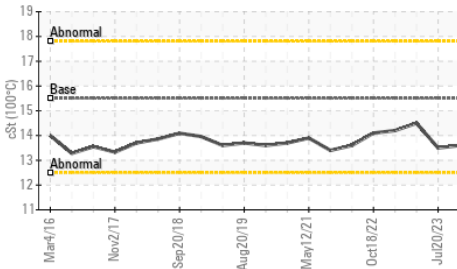
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

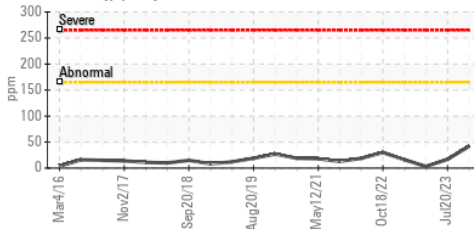


| PARAMETER | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

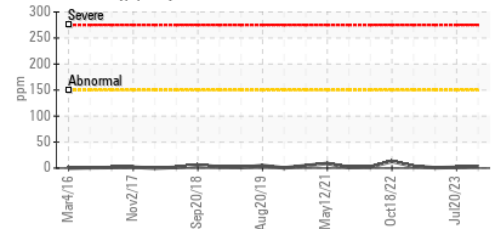
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 15.5 | 13.6 | 13.5 |

GRAPHS

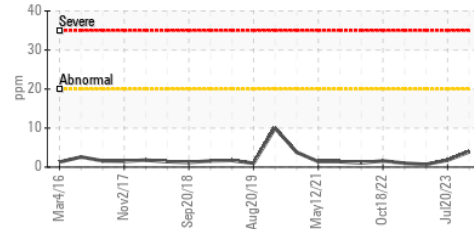
Iron (ppm)



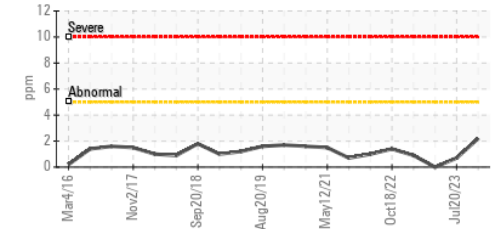
Lead (ppm)



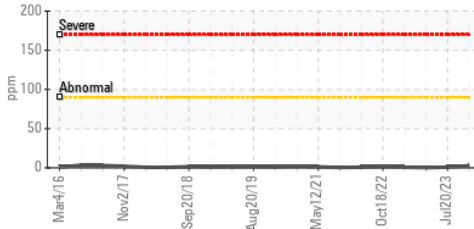
Aluminum (ppm)



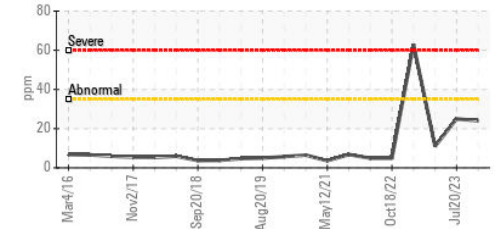
Chromium (ppm)



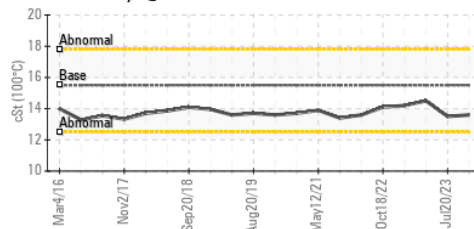
Copper (ppm)



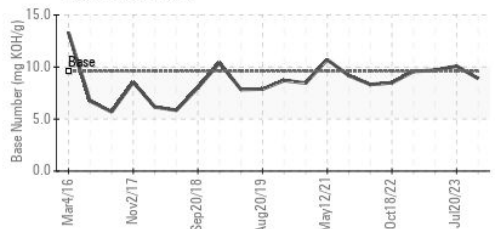
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0125060
Lab Number : 06186388
Unique Number : 11043140
Test Package : MOB 2

Received : 21 May 2024
Tested : 22 May 2024
Diagnosed : 22 May 2024 - Wes Davis

BROWN BUS COMPANY - UPSTATE TRANSIT
 50 VENNERS ROAD
 AMSTERDAM, NY
 US 12010

Contact: CONNIE WILBUR
 cwilbur@browncoach.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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